



Greenforest Incorporated



Consulting Arborist

September 27, 2016

Patricia McPherson
Falk Development, Inc.
PO Box 2521
Redmond, WA 98073

RE: Tree Health Report- Woodrun 2, TPN 7200002050

Dear Ms. McPherson:

You contacted me and contracted my services as a consulting arborist. My assignment is to inspect and inventory the significant trees at the above referenced site and provide a tree health report to satisfy City of Redmond tree report guidelines. I received a topographic survey prepared by Core Design showing the locations of the significant trees on this site.

SITE CONDITIONS

The site is an undeveloped parcel covered in native vegetation. It is accessed from the street end of NE 95th Court, adjacent to Woodrun Townhomes. Trees are more uniformly dense at the west portion of the parcel, and the understory is typical: swordfern, nettle, thimbleberry, Indian plum. The eastern portion of the parcel receives more sunlight and invasive brambles are dense and tall.

TREE SUMMARY

Onsite tree categories and condition is summarized in the following table.

	Total	Unhealthy	Healthy
Significant Trees on Site	34	17	17
Landmark Trees on Site	7	0	7
Total Trees	41	17	24

TREE INSPECTION METHOD

I performed a Level 1 tree risk assessment.¹ This is the standard assessment for populations of trees near specified targets, conducted in order to identify obvious defects or specified conditions such as a pre-development inventory. A limited visual assessment typically focuses on identifying trees with imminent and/or probable likelihood of failure.

This report identifies unhealthy trees based on existing health conditions and tree structure, and specifies which trees are most suitable for preservation.²

I recorded tree species and size (DBH). I estimated the average dripline of each tree. I rated the condition of each tree, both health and structure. 'Healthy trees' appear normal and vital, are without obvious defects, or have minor defects that, if retained within a grove or stand of trees, will not affect their usefulness as a landscape tree once development is complete.

The subject trees were tagged and numbered with a 1" x 3" aluminum tag prior to my inspection. The attached tree inventory contains the following information on each tree.

Tree Category indicates if tree is Significant (6" or greater DBH) or Landmark (greater than 30" DBH).

Tree number as indicated on tag in field and shown on the attached site plan.

DBH Stem (trunk) diameter in inches 4.5 feet from grade. Multiple-trunked trees are listed individually, and the average of all stems is used to assign each tree's category.

Tree Species Common name.

Dripline Average branch extension in feet as radius from the trunk.

Health and Structure rating '1' indicates no visible health-related problems or structural defects, '2' indicates minor visible problems or defects that may require attention if the tree is retained, and '3' indicates significant visible problems or defects: the tree is considered unhealthy and removal is recommended.

Visible Defects Obvious structural defects or diseases visible at time of inspection, including:

¹ Companion publication to the ANSI A300 Part 9: Tree Shrub and Other woody Plant Management – Standard Practices, Tree Risk Assessment. 2011. ISA.

² Companion publication to the ANSI A300 Part 5: Tree Shrub and Other woody Plant Maintenance – Standard Practices, Managing Trees During Construction. 2008. ISA.

Asymmetric canopy– the tree has an asymmetric canopy from space and light competition from adjacent trees.

Dead – tree is dead.

Deadwood – Large and/or multiple dead branches throughout canopy.

Decay – process of wood degradation by microorganisms resulting in weak and defective structure.

Double leader – the tree has multiple stem attachments, which may require maintenance or monitoring over time.

Multiple leaders - the tree has multiple stem attachments, which may lead to tree failure and require maintenance or monitoring over time.

Previous failure – Tree trunk previously broken and defective.

Suppressed – tree crowded by larger adjacent trees; with defective structure and/or low vigor. Retain tree only as a grove tree, not stand-alone.

Trunk decay - Wood decay is visible in the trunk.

Wound/decay base of trunk - Open wound with visible decay in trunk.

Photograph indicates reference to images in an attachment, documenting visible defects.

Remove identifies trees proposed to be removed because they are unhealthy, or because of proposed site improvements.

Retain identifies trees to be retained and impacted, and retained and not impacted.

LIMITATIONS AND USE OF THIS REPORT

This tree report establishes, via the most practical means available, the existing conditions of the trees on the subject property. Ratings for health and structure, as well as any recommendations are valid only through the development and construction process. This report is based solely on what is readily visible and observable, without any invasive means.

There are several conditions that can affect a tree's condition that may be pre-existing and unable to be ascertained with a visual-only analysis. No attempt was made to determine the presence of hidden or concealed conditions which may contribute to the risk or failure potential of trees on the site. These conditions include root and stem (trunk) rot, internal cracks, structural defects or construction damage to roots, which may be hidden beneath the soil. Additionally, construction and post-construction circumstances can cause a relatively rapid deterioration of a tree's condition.

The attached Tree Retention Plan provides the location and numbering for each tree, illustrating each tree's dripline, and illustrating 5' from each tree's dripline.

Patricia McPherson, Falk Development, Inc.
RE: Tree Health Report- Woodrun 2, TPN 7200002050
September 27, 2016
Page 4 of 13

Thank you for your business.

Sincerely,

GreenForest, Inc.



By Favero Greenforest, M. S.

ISA Certified Arborist # PN -0143A
ASCA Registered Consulting Arborist® #379
ISA Tree Risk Assessment Qualified

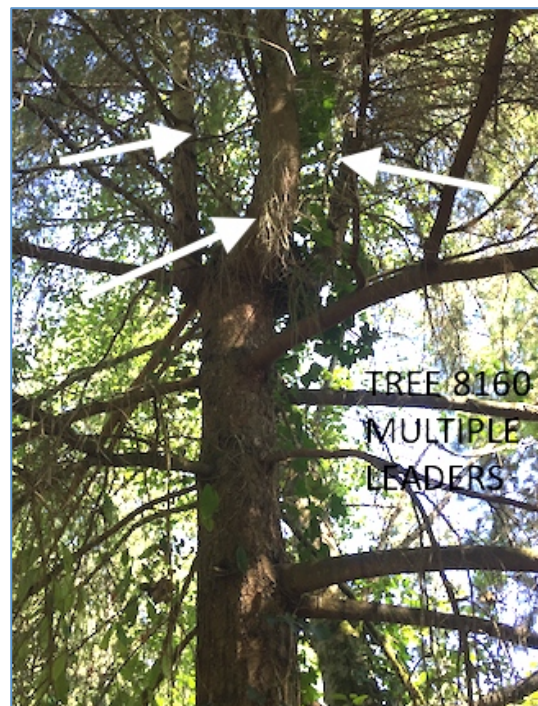
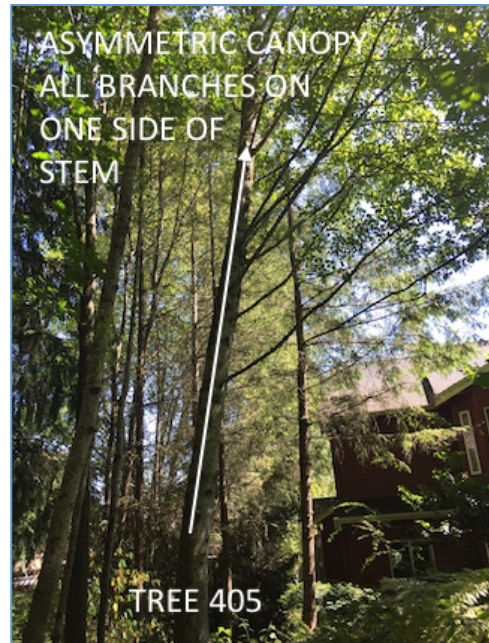
Attachments:

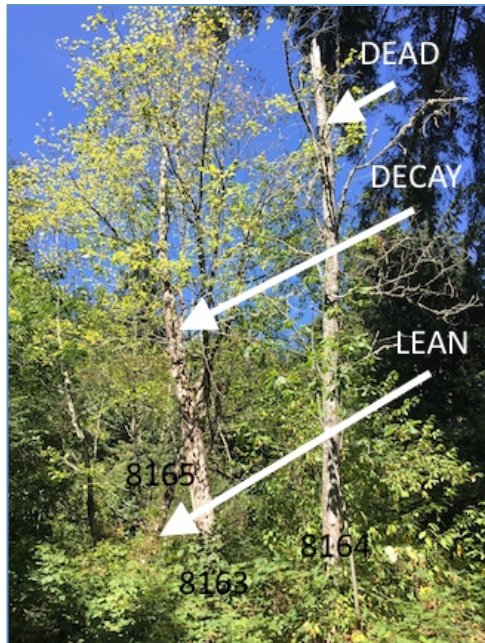
1. Assumptions and Limiting Conditions
2. Photographs
3. Summarizing Compliance with Code Chart
4. Tree Inventory Table
5. List of Offsite Trees
6. Preliminary Tree Preservation Plan

Attachment No. 1 - Assumptions & Limiting Conditions

- 1) A field examination of the site was made 8/23/2016. My observations and conclusions are as of that date.
- 2) Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree may not arise in the future.
- 3) All trees possess the risk of failure. Trees can fail at any time, with or without obvious defects, and with or without applied stress. A complete evaluation of the potential for this (a) tree to fail requires excavation and examination of the base of the subject tree.
- 4) The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made.
- 5) Loss or alteration of any part of this report invalidates the entire report.
- 6) Unless required by law otherwise, possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
- 7) This report and any values/opinions expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- 8) Construction activities can impact trees in unpredictable ways. All retained trees should be inspected at the competition of construction, and regularly thereafter as part of ongoing maintenance.
- 9) The consultant does not assume any liability for the subject tree and does not represent the transfer of such for any risks associated with the tree from the landowner to the consultant.
- 10) **Risk management is solely the responsibility of the landowner.**
- 11) Trees are biological systems and change over time; therefore, future inspections are required and are the responsibility of the landowner to initiate.

Attachment No. 2 – Photographs





Attachment No. 3 – Summarizing Compliance with Code Chart.

Compliance Chart for 24 Healthy Significant and Landmark Trees

Tree Type	Removed		Impacted	Retained		Total		
Landmark >30"	Number of Removed landmark	1	Number of Impacted Landmark	0	Percent of Retained Landmark	6	Total Landmark Trees	7
	Percent of Removed Landmark	14%	Percent of Impacted Landmark	0	Percent of Retained Landmark	86%	Percent Landmark of All Trees	29%
Significant 6- 30"	Number of Removed Significant	11	Number of Impacted Significant	0	Number of Retained Significant	6	Total Significant Trees	17
	Percent of Removed Significant	65%	% Impacted of Significant	0	Percent Retained of all Significant	35%	Percent of Significant of All Trees	71%
Totals	Number of Land. + Sig. Removed	12	Number of Landmark + Sig. Impacted	0	Number of Land. + Sig. Retained	12	Total Number of All Trees	24
	Percent of Removed of all Trees	50%	Percent of Impacted of All Trees	0	Percent of Retained of all trees	50%		
Replacement Trees*	Number of Replacement Trees	14					Replacement Trees	14

*(Landmark = 1 X 3) plus (Significant = 11 X 1) = 14 Total Replacement Trees

Attachment No. 4 – Tree Inventory Table

Count	Category	Tree No.	DBH	Species	Dripline	Health	Structure	Visible Defects	Photograph	Remove- Unhealthy	Remove- Improvements	Retain- Impacted	Retain- Not Impacted
1	Significant	404	9"	Maple	14'	3	2	Asymmetric, trunk wound	3	X			
2	Significant	405	15"	Alder	16'	1	2	Asymmetric	2		X		
3	Significant	406	7"	Alder	12'	1	2	Asymmetric			X		
4	Significant	407	11"	Alder	14'	1	1				X		
5	Significant	408	9"	Alder	10'	1	1				X		
6	Significant	409	11"	Alder	14'	1	1				X		
7	Significant	410	11"	Alder	16'	1	2	Asymmetric			X		
8	Significant	429	18"	Alder	14'	2	3	Decline, lean		X			
9	Significant	431	22,30"	Maple	30'	1	3	Previous root failure		X			
10	Significant	434	12"	Alder	14'	2	3	Decline, lean, dead top		X			
11	Significant	435	8"	Alder	8'	2	3	Dead top, decline		X			
12	Significant	436	29"	Maple	30'	1	2	Asymmetric					X
13	Significant	437	8"	Maple	16'	1	2	Asymmetric, suppressed					X
14	Significant	438	27"	Maple	20'	1	2	Asymmetric					X
15	Landmark	439	51"	Maple	30'	1	2	Deadwood	11				X
16	Significant	440	23"	Maple	25'	1	2	Asymmetric					X
17	Landmark	444	34"	Cedar	16'	1	2	Asymmetric					X
18	Significant	445	28"	Cedar	16'	1	2	Asymmetric					X
19	Landmark	446	24,36"	Cedar	16'	1	2	Double leader					X
20	Significant	450	8"	Maple	0'	3	3	Dead		X			
21	Significant	451	20"	Maple	16'	1	1						X

Count	Category	Tree No.	DBH	Species	Dripline	Health	Structure	Visible Defects	Photograph	Remove- Unhealthy	Remove- Improvements	Retain- Impacted	Retain- Not Impacted
22	Significant	453	10"	Maple	6'	2	3	Decline, top dead		X			
23	Significant	462	30"	Maple	30'	1	1				X		
24	Landmark	464	48"	Cedar	16'	1	2	Asymmetric, double leader					X
25	Landmark	465	46"	Cedar	16'	1	1						X
26	Landmark	466	48"	Cedar	16'	1	2	Asymmetric					X
27	Significant	8157	25"	Maple	25'	1	1				X		
28	Significant	8158	15,18"	Hemlock	16'	1	2	Double leader	1		X		
29	Landmark	8159	39"	Doug-fir	20'	1	1				X		
30	Significant	8160	15"	Doug-fir	16'	1	3	Multiple leaders	4	X			
31	Significant	8163	14"	Alder	14'	3	3	Decline, trunk decay	5,7	X			
32	Significant	8164	10"	Alder	0'	3	3	Dead	6	X			
33	Significant	8165	11"	Alder	10'	3	3	Decline, lean, trunk decay	5	X			
34	Significant	8166	24"	Doug-fir	18'	1	1				X		
35	Significant	8167	14"	Alder	6'	2	3	Dead top		X			
36	Significant	8168	14"	Maple	16'	1	2	Asymmetric			X		
37	Significant	8169	7,9,10"	Maple	18'	1	3	Previous root failure	8	X			
38	Significant	9001	6"	Alder	10'	1	3	Lean, previous failure		X			
39	Significant	9013	6"	Maple	12'	1	3	Suppressed	10	X			
40	Significant	9014	7"	Alder	3'	3	3	Decline, dead top		X			
41	Significant	9041	12"	Plum	16'	1	3	Previous root failure	9	X			
										17	12	0	12

Attachment No. 5 – List of Offsite Trees

Tree No.	DBH	Species	DL	Health	Structure	Visible Defects
424	11"	Fir	10'	1	1	
425	9"	Fir	10'	2	2	Suppressed
441	26"	Cedar	16'	1	2	Asymmetric, growth obstruction
442	20"	Hemlock	14'	1	2	Growth obstruction, trunk decay
443	60"	Fir	20'	1	1	Bulge at base of trunk
447	44"	Cedar	16'	1	2	Asymmetric
448	26"	Cedar	16'	1	2	Asymmetric
449	33"	Cedar	16'	1	2	Asymmetric
452	56"	Cedar	16'	1	1	
454	24"	Fir	16'	1	1	
455	22"	Hemlock	14'	1	1	
456	22"	Maple	18'	1	2	Asymmetric, previous failure
458	14"	Maple	16'	1	2	Asymmetric, dogleg
459	38"	Hemlock	18'	1	2	Chlorosis
460	24"	Maple	20'	1	2	Asymmetric
461	14"	Maple	16'	1	1	
463	12"	Alder	18'	1	2	Asymmetric, lean
8079	12"	Maple	16'	1	1	
8137	10"	Maple	14'	1	2	Dogleg
8161	15"	Alder	16'	1	3	Lean, dead top, ivy
8162	38"	Maple	25'	2	2	Sweep, ivy
8170	18"	Hemlock	16'	1	1	
8213	10"	Maple	14'	1	2	Asymmetric
8219	8"	Fir	12'	1	2	Asymmetric

Tree No.	DBH	Species	DL	Health	Structure	Visible Defects
8220	6"	Fir	6'	1	2	Asymmetric
8227	12"	Fir	10'	1	1	Off site
8228	11"	Fir	12'	1	1	Off site
9003	6"	Maple	10'		3	Previous root failure: off site
9005	10"	Maple	16'	1	2	Sweep, assymetric: off site
9006	14"	Maple	16'	1	2	Asymmetric: off site
9007	6"	Maple	12'	1	2	Asymmetric: off site
9008	6"	Alder	0'	3	3	Dead: off site

Patricia McPherson, Falk Development, Inc.
RE: Tree Health Report- Woodrun 2, TPN 7200002050
September 27, 2016
Page 13 of 13
Attachment No. 6 – Preliminary Tree Preservation Plan

LEGEND

- SIGNIFICANT TREE TO BE REMOVED
- SIGNIFICANT TREE TO BE RETAINED
- LANDMARK TREE TO BE REMOVED
- LANDMARK TREE TO BE RETAINED
- 5' BSBL FROM TREE DRIPLINE (SEE NOTES 4 & 5 FOR EXCEPTIONS)
- OFF-SITE TREE
- CLEARING LIMITS

SUMMARY OF ON-SITE TREE RETENTION

TREE TYPE	REMOVAL	RETAINED	TOTAL
LANDMARK (*1:3) (OVER 30" DBH)	1 4%	6 25%	7 29%
SIGNIFICANT (*1:1) (6" - 30" DBH)	11 46%	6 25%	17 71%
TOTAL	12 50%	12 50%	24 100%
REPLACEMENT TREES			14

* INDICATES REPLACEMENT RATIO OF TREES REMOVED TO TREES REPLACED.

TREE CALCULATIONS

-TOTAL SIGNIFICANT TREES : 24 (SIG. AND LAND.)
(17 SIG. TREES + 7 LAND. = 24 SIG. TOTAL)
-35% MIN. TREE RETENTION = 24 X 0.35 = 9 (8.4)
-7 LAND. TREES - 6 LAND. TREES SAVED = 1 LAND. TREE REMOVED
-1 REMOVED LAND. TREES TO BE REPLACED AT 3:1 RATIO
-17 SIG. TREES - 6 SIG. TREES SAVED = 11 SIG. TREES REMOVED
-11 REMOVED SIG. TREES TO BE REPLACED AT 1:1 RATIO

TOTAL REPLACEMENT TREES: 14
LAND. TREES: 1 TREE X 3 = 3 REPLACEMENT TREES REQ'D
SIG. TREES: 11 TREES X 1 = 11 REPLACEMENT TREES REQ'D

NOTES

- FOR TREE RETENTION CALCULATIONS AND DATA SHEETS, REFER TO ARBORIST REPORT.
- FOR TREE REPLACEMENT LOCATION SEE LANDSCAPE PLAN.
- UNHEALTHY TREES HAVE BEEN EXEMPT FROM COUNTS. SEE ARBORIST REPORT FOR TREE HEALTH AND CONDITION RATINGS.
- SIDEWALKS & UTILITIES MAY BE LOCATED WITHIN DRIPLINE OF A PROTECTED TREE PER REDMOND ZONING CODE SECTION 21.72.060.
- THE ADMINISTATOR MAY ALLOW CONSTRUCTION LIMITS OR ALTERATION OF GRADES WITHIN 5' OF DRIPLINE OF A PROTECTED TREE PER REDMOND ZONING CODE SECTION 21.72.060.



This approval is for design concept only. These plans appear to be in conformance with City of Redmond design standards for construction. This approval shall not be construed as authorizing construction not in accordance with applicable City standards. The City reserves the right to require revisions to the approved plans to assure conformance with City of Redmond design standards for construction at any time that it is discovered that the proposed construction does not otherwise meet the applicable construction standards. The owner is required to provide designs and plans in accordance with applicable City standards and assure that construction is accomplished in accordance with those standards. The owner and/or design engineer and/or developer, as the case may be, may be required to make necessary approved field revisions to correct any errors or omissions found to exist on the approved plan.

NOTE: THIS DEVELOPMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2012 CITY OF REDMOND STANDARD SPECIFICATIONS AND DETAILS.

APPROVED FOR CONSTRUCTION

For: _____
Director of Public Works
City of Redmond
Date: _____
Plan Check Engineer: _____
Storm Drainage Engineer: _____
Utility Engineer: _____
Fire Department: _____
Trans. Engineer: _____
Planning Dept.: _____

DATE	APRIL 2016	SHEET	OF
DESIGNED	LINDSEY B. SOLORIO, P.L.A.	L1.01	15
DRAWN	LINDSEY B. SOLORIO, P.L.A.	PROJECT NUMBER 15165	
APPROVED	LINDSEY B. SOLORIO, P.L.A.		
	GINA R. BROOKS, P.E.		
	PROJECT MANAGER		
PRELIMINARY TREE PRESERVATION PLAN WOODRUN II WOODRUN TOWNHOMES, L.L.C. 18001 NE 76TH ST. REDMOND, WA 98052			
CORE DESIGN ENGINEERING • PLANNING • SURVEYING 14711 NE 29th Place Suite 101 Bellevue, Washington 98007 425.885.7877 Fax 425.885.7963			
LINDSEY BENNETT SOLORIO CERTIFICATE NO. 136 04/17/2016			
STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT			
REVISIONS 1 REVISED PER CITY 308 PREP COMMENTS 7/21/16 2 REVISED PER CITY 608 PREP COMMENTS 9/26/16			